

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number  
WO 2005/064826 A1

(51) International Patent Classification<sup>7</sup>: H04B 10/08 (74) Agent: STASIEWSKI, Piotr; Marconi Intellectual Property, New Century Park, (Post Point 51), Coventry West Midlands CV3 1HJ (GB).

(21) International Application Number: PCT/EP2004/053441

(22) International Filing Date: 14 December 2004 (14.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 103 60 788.9 23 December 2003 (23.12.2003) DE

(71) Applicant (for all designated States except US): MARCONI COMMUNICATIONS GMBH [DE/DE]; Gerberstrasse 33, 71520 Backnang (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PEGG, Steven, Ian [GB/GB]; 2 Henry Bird Court, Northampton Northamptonshire NN4 8GF (GB). POIRRIER, Julien, Nicholas, Vincent [FR/FR]; 29 Coteau de la Louviere, F-55100 Haudainville (FR). PACKHAM, Robert, Richard [GB/DE]; Zur Dillenius Strasse 3, 71522 Backnang (DE). FEWS, Hayden, Scott [GB/DE]; Stressemann Strasse 31, 71522 Backnang (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

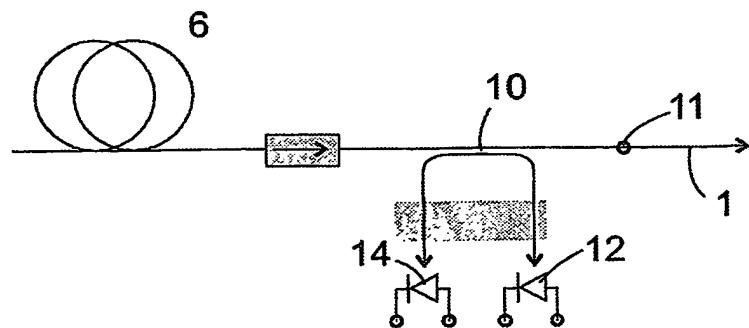
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPTICAL COMMUNICATION NETWORK AND COMPONENT THEREFOR



(57) Abstract: A component for an optical communication network comprises a source (6) for an optical communication signal, an output port (11) for outputting the optical communication signal on an optical transmitting fibre (1), a light sensor (14; 15) and an optical circulator (9) for transmitting the optical communication signal from the source (6) to the output port (11) and for transmitting light reflected or received from outside at the output port (11) to the light sensor (14; 15). The light sensor (14, 15) has an evaluation circuit (13) connected to it for detecting a time delay between a

WO 2005/064826 A1

time marker of a light signal from the source and the corresponding time marker of the light arriving at the light sensor (14; 15).